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Measures of the companion of *Sirius* indicate that it is following very closely the best recent orbits.

H 529. PORTER gives the principal star of this pair the large proper motion of $0''.900$ in $154^{\circ}.6$. HERSCHEL estimated $120^{\circ} 20''$, but no measure of the pair was made until two years ago, when I obtained, from three nights' measures with the 12-inch—

1896.51	$120^{\circ}.4$	$17''.30$	Magnitudes. 9—10
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Recent measures on two nights with the same instrument give:—

1898.86	$121^{\circ}.0$	$17''.56$
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This proves that the two stars are moving together. It is rather unusual to find such strong evidence of physical connection between two faint stars so far apart. The position of the star for 1900.0 is R. A. $13^h 14^m 54^s$; Decl. $+35^{\circ} 40'$.

LICK OBSERVATORY, January 20, 1899.

R. G. AITKEN.

TWO NEW PLANETS DISCOVERED AT THE LICK OBSERVATORY.

On the night of October 13, 1898, I made an exposure, two hours in length, with the Crocker photographic telescope; and upon the plate obtained I found the trails of three asteroids, two of which proved to be new. These have been designated, provisionally, 1898 EB, and 1898 EC.

I have since secured a number of observations of each of these planets, and have determined the elements of their orbits as follows:—

Elements of Planet 1898 EB.

Epoch Berlin M. T. 1898, Oct. 14.5

$M = 310^{\circ} 47' 3''.7$

$\omega = 232 \quad 56 \quad 55.4$

$\Omega = 202 \quad 26 \quad 1.5$

$i = 19 \quad 13 \quad 27.5$

$\phi = 4 \quad 19 \quad 19.9$

$\log a = 0.466958$

$\mu = 637''.631$

$P = 2032.52$ days.

} 1899.0

The above elements were computed from observations made on October 14, November 3, and November 16, 1898. At the time of discovery the brightness of this planet was estimated at 11.5th magnitude.

Elements of Planet 1898 EC.

Epoch Berlin M. T. 1898, Oct. 18.5

$$M = 284^{\circ} 59' 46''.6$$

$$\omega = 175 \quad 59 \quad 19 \quad .2$$

$$\Omega = 292 \quad 17 \quad 43 \quad .3 \quad \left. \vphantom{\begin{matrix} \omega \\ \Omega \end{matrix}} \right\} 1899.0$$

$$i = 1 \quad 35 \quad 48 \quad .8$$

$$\phi = 6 \quad 17 \quad 1 \quad .8$$

$$\log a = 0.345198$$

$$\mu = 1076''.988$$

$$P = 1203.36 \text{ days.}$$

These elements were computed from one normal place of October 18, (six observations), and single observations of November 3 and November 17, 1898. At the time of discovery the brightness of this planet was estimated at 12.5th magnitude.

MT. HAMILTON, January 16, 1899.

E. F. CODDINGTON.

PROBABLE PROPER MOTION OF HARVARD A. G. 2577.

This star was used as a comparison star in observations of Comet *b* 1898, along with others on the same nights. Discrepancies in the observations led to a direct comparison of this star with others, and subsequently a reobservation of this star with the meridian-circle by Professor TUCKER. The star's R. A. is found to be substantially the same as that of the A. G. catalogue, but its declination is 6'' less. This difference is probably due to a proper motion of 0''.25 per year, although there is an incomplete observation at Bonn, in 1860, which differs considerably in both co-ordinates from such an assumption.

MT. HAMILTON, Dec. 20, 1898.

C. D. PERRINE.

COMET DISCOVERIES OF THE YEAR 1898.

In the number of cometary discoveries the year 1898 has surpassed all previous records. Ten comets in all were found during the year, three being returns of well-known members of the solar system, and the remaining seven unexpected. It is worthy of note also that all ten passed perihelion in little more than eight months—between March 20 and November 23, 1898. The Lick Observatory contributed six to this list of discoveries, three of the unexpected comets having been picked up by Mr. PERRINE, and one by Mr. CODDINGTON—the last named by photography—while the rediscovery of WINNECKE's and